Apache AKKA Training Topics 50-60 hrs module	
Introduction of AKKA	1. What is Akka 2. History or Akka 3. Requirements of Akka 4. Understanding the Akka and Scala Community 5. Terminology 6. Use Cases of Akka
Download, Installation and Configuration	AKKA
AKKA ACTORS	1. Actors 2. Actor System 3. Actor Reference 4. Actor Communication 5. Actor Lifecycle 6. Starting ,stopping & Killing Actors 7. Shutting down the Actor System 8. Actor Monitoring 9. Looking up Actors 10. Example
Spark with Cassandra	Example of spark streaming with Cassandra
Akka & Cassandra	1. Building Akka Application for Twitter Data using Cassandra 2. -Writing to Cassandra 3. -Reading From Cassandra 4. -Connecting to Cassandra 5. -Scanning Tweets 6. -Testing TweetScannerActor
Akka & Spark	Example discussion for Spark Streaming with Akka
Typed Actor	1. Typed Actors in Java 2. Typed Actors in Scala
Fault Tolerance	1. One for One Strategy 2. One for All Strategy

Dispatcher	1. Default dispatcher 2. Looking up a Dispatcher 3. Setting the dispatcher for an Actor 4. Types of dispatchers 5. More dispatcher configuration examples
MailBox	1. Mailboxes 2. Mailbox Selection 3. Requiring a Message Queue Type for an Actor 4. Requiring a Message Queue Type for a Dispatcher 5. How the Mailbox Type is Selected 6. Default Mailbox 7. Builtin Mailbox Implementations 8. Which Configuration is passed to the Mailbox Type 9. Mailbox configuration examples 10. Creating your own Mailbox type
Routing	1. A Simple Router 2. A Router Actor 3. Router usage 4. Dynamically Resizable Pool 5. How Routing is Designed within Akka 6. Custom Router 7. Configuring Dispatchers
SM (Finite State Machine)	1. A Simple Example 2. The FSM Trait and Object 3. Monitoring Transitions 4. External Monitoring 5. Transforming State 6. Termination from Outside 7. Testing and Debugging Finite State Machines 8. Event Tracing 9. Rolling Event Log 10. Examples
Persistence	1. Dependencies 2. Architecture 3. Event sourcing 4. Identifiers 5. Recovery 6. Recovery customization 7. Recovery status 8. Nested persist calls 9. Failures 10. Atomic writes 11. Batch writes 12. Message deletion

	13. Persistence status handling 14. Safely shutting down persistent actors 15. Replay Filter 16. At-Least-Once Delivery 17. Event Adapters 18. Persistent FSM with example 19. Storage plugins 20. Pre-packaged plugins 21. Testing 22. Multiple persistence plugin configurations 23. Persistence - Schema Evolution 24. Picking the right serialization format
Persistence Query	1. Dependencies 2. Read Journals 3. Predefined queries 4. Performance and denormalization 5. Query plugins
Testing	1. Testing Actor Systems 2. Asynchronous Testing: TestKit 3. Built-In Assertions 4. Expecting Log Messages 5. Timing Assertions 6. Using Multiple Probe Actors 7. Replying to Messages Received by Probes 8. Forwarding Messages Received by Probes 9. Caution about Timing Assertions 10. Testing parent-child relationships 11. Configuration TestKit 12. Synchronous Testing: TestActorRef 13. Obtaining a Reference to an Actor 14. Testing Finite State Machines 15. Testing the Actor's Behavior
Configuration	1. Configuration 2. Cluster Info Logging 3. Cluster Dispatcher 4. Cluster Singleton 5. Distributed Publish Subscribe in Cluster 6. Cluster Client 7. Cluster Sharding 8. Cluster Metrics Extension 9. Distributed Data Using the Replicator 10. Consistency 11. Subscribe 12. Data Types
Remoting	1. Remoting

	2. Preparing your ActorSystem for Remoting 3. Types of Remote Interaction 4. Looking up Remote Actors 5. Creating Actors Remotely 6. Programmatic Remote Deployment 7. Remote deployment whitelist 8. Lifecycle and Failure Recovery Model 9. Watching Remote Actors
Serialization	1. Usage 2. Customization 3. A Word About Java Serialization 4. Serialization compatibility 5. External Akka Serializers
I/O	1. Introduction 2. Terminology, Concepts 3. Architecture in-depth
TCP	1. Using TCP 2. Connecting 3. Accepting connections 4. Closing connections 5. Writing to a connection 6. Throttling Reads and Writes 7. ACK-Based Write Back-Pressure 8. NACK-Based Write Back-Pressure with Suspending 9. Read Back-Pressure with Pull Mode
UDP	1. Using UDP 2. Unconnected UDP 3. Connected UDP 4. UDP Multicast
Camel	1. Introduction 2. Consumer Actors 3. Producer Actors 4. Asynchronous routing 5. Custom Camel routes 6. Examples 7. Configuration 8. Additional Resources
Multi JVM Testing	1. Setup 2. Running tests 3. Creating application tests 4. Changing Defaults 5. Configuration of the JVM instances 6. ScalaTest 7. Multi Node Additions
Streams	1. Introduction

	2. Quick Start Guide 3. Design Principles behind Akka Streams 4. Basics and working with Flows 5. Working with Graphs 6. Modularity, Composition and Hierarchy 7. Buffers and working with rate 8. Dynamic stream handling 9. Custom stream processing 10. Integration 11. Error Handling 12. Working with streaming IO 13. Pipelining and Parallelism 14. Testing streams
Futures and Agents	1. Futures 2. Agents
Utilities	1. Event Bus 2. Logging 3. Scheduler 4. Duration 5. Circuit Breaker 6. Akka Extensions